XXI. Descriptions of some new Species of Sagra; Remarks on that Genus; and the Characters of Cheiloxena, a new Genus belonging to the same Family. By J. S. Bally, Esq.

[Read June 4th, 1860.]

In the following paper I have endeavoured (as completely as the materials before me will allow) to bring our knowledge of the genus Sagra from the date of M. Lacordaire's valuable work up to the present time; it will be seen that I have reduced some of the Lacordairian species to mere varieties, whilst, on the other hand, I have named and described others lately added to our collections, which I believe to be new; at the end of the paper I have given a list of the species, marking with a † those with which I am unacquainted.

#### Sagra nigrita, Oliv.

During the last few years this insect has been received plentifully from Mr. Thwaites, of Ceylon, thus proving (as M. Lacordaire imagined) that the locality given by Olivier in his great work was erroneous; I possess two male specimens which, instead of being entirely black, as in the type, are nigroæneous; they agree in all particulars, save locality, with S. dentipes, the next species in Lacordaire's book. I cannot but think that Fabricius and Weber were wrong in supposing this latter insect to have been brought from the Cape of Good Hope; according to the description given by Lacordaire, it is much more nearly allied to the Indian, than to any known African species, and, in all probability, will eventually prove to be a mere variety of S. nigrita.

## Sagra splendida, Weber.

This insect is spread over the whole Indian continent. I have also received it from Shanghai, where it was taken by Mr. Fortune; the specimens from India are generally much darker and more deeply tinged with violet; those from northern China are a third smaller than the ordinary size.

# Sagra Petelii.

I have examined six examples of the male of this beautiful little species, but in one specimen only have I found the posterior

tibiæ to agree exactly with Lacordaire's description; in all the rest there are rudiments, more or less distinct, of a sub-apical tooth on the inner edge. The species is most commonly sent from Java, but I possess it also from Nepaul, and it has been taken by M. Mouhot in Siam, the specimen being in Mr. Saunders's Collection; in the British Museum is a small female from Tenasserim.

#### Sagra perlueida, Lacord.

I consider, for the reasons stated below, this insect to be a variety of Sagra Buquetii; M. Lacordaire has subdivided his first division of the genus into three sections, the characters for which are drawn from the toothing of the apex of the posterior tibiæ in the males: thus, in section A., the hinder tibiæ have this part of the limb tridentate; in section B. the internal tooth is obsolete, whilst the outer one is produced into a strong spine; and in section C., the one in which S. perlucida is placed, the tibiæ are simple and unarmed in either sex. The insects contained in this section resemble, in a most remarkable manner, corresponding species in one or other of the two preceding subdivisions, differing merely in their somewhat smaller size, in the lesser development of the hinder thigh, with sometimes a slight modification of its under surface, and in the absence of the lateral teeth on the posterior tibiæ. The possession of an interesting series of S. nigrita, in which the teeth dwindle away until they become nearly obsolete, first led me to suspect that the above insects were males in which an arrest of development of the posterior legs had taken place, and that their typical forms belonged to the preceding sections. After a careful examination of S. ignita, Weberi and others, I was fully confirmed in this opinion, and in the present paper I have placed these insects as varieties under the respective species to which I consider them to belong; at the time M. Lacordaire wrote, he had, in most instances, so limited a number of specimens under examination, that it was impossible to avoid separating insects with such an apparent difference of structure, unconnected by any intermediate link. An analogous instance may be adduced in the case of Lucanus cervus, where the development of the male mandibles varies so greatly in different individuals, as to have caused the extreme states to be described under separate names.

I have never seen an insect answering exactly to the description, as given by Lacordaire, of S. perlucida, but I possess small individuals of S. Buquetii, &, in my own cabinet, in which the subapical teeth are reduced to less than half their usual size.

## Sagra ignita, Lacord.

In this insect, which ought to be placed under S. splendida, the under surface of the hinder thighs is generally tridentate, the middle tooth being longest; the additional tooth is formed by the development of the anterior extremity of the denticulate ridge of the lower edge of the thigh, into a short spine. The specimen in my cabinet has a rudimentary tooth on the inner edge of the hinder tibiæ.

# Sagra formosa, Lacord.

I consider this insect to be the corresponding variety of the Indian form of S. splendida; a specimen exists in the collection of Major Parry.

## Sagra Weberi, Lacord.

The present insect belongs to S. Druryi; most frequently the posterior thighs are bidentate beneath, as in the typical form of the species, but occasionally they are tridentate, as in the two preceding insects; it then becomes S. tridentata, Fabr.

## Sagra Fabricii, Lacord.

This form is unknown to me, but I have no hesitation in placing it as a variety of S. superba.

## Sagra pygmæa, Lacord.

With this pretty little insect I am also unacquainted, but although the tomentose patch at the inner base of its hinder thigh is wanting, I regard it as merely a small variety of S. Petelii.

## Sagra heterodera, Lacord.

This singular insect is evidently a variety, belonging to a species the typical form of which is as yet unknown; it ought probably to stand in the first sub-section, near S. splendida.

## Sagra seraphica, Lacord.

Two specimens from Old Calabar, both females, apparently belonging to this species, exist, one in the British Museum, the other in my own collection; others I believe are to be found in the cabinets of Mr. Murray and M. Javet, but I know not whether either of these gentlemen possess the male.

## Sagra Adonis, Lacord.

Is possibly a variety (analogous to var. A. of S. bicolor) of the last species, S. seraphica.

## Sagra Pfeifferi, n. sp.

Oblongo-ovata, crassa, viridi-ænea, cæruleo micans, sub-nitida, antennis extrorsum nigris; thorace sub-quadrato, antice vix producto, angulis anticis parum prominulis; elytris ovatis, basi truncatis, intra humeros modice impressis, tenuiter reticulato-strigosis, interstitiis ad apicem crenulatis; gemellato-punctato-striatis, striis fere deletis.

Mas.—Femoribus posticis valde incrassatis, elytris fere dimidio superantibus, subtus apice profunde sinuatis, sinu intus fulvotomentoso, dentibus duobus validis armatis, horum secundo ad angulum posticum emarginationis posito; tibiis posticis apice mucronatis, ante apicem bidentatis, dente externo valido; abdominis segmento basali vix deplanato, remote punctato, vage flavo-tomentoso.

Long. 10 lin.

Robust, ovate, resembling S. quadraticollis in form, but rather shorter and thicker than that insect, bright metallic green, with metallic blue reflexions, sub-nitidous, outer half of antennæ black, opaque. Head finely punctured; antennæ robust, two-thirds the length of the body, six basal joints shining metallic green. Thorax sub-quadrate, almost transverse across the anterior angles, the latter moderately prominent, anterior margin very slightly produced; upper surface sub-opaque, impressed near the basal margin with a shallow fovea; sparingly covered near the base by a few very minute punctures, only visible under a lens. Scutellum semi-ovate, its base deeply excavated. Elytra shorter, ovate, truncate at the base, their apex sub-acutely rounded; above very convex, moderately impressed within the shoulders, the latter somewhat prominent, basilar space indistinctly elevated, bounded beneath by a nearly obsolete transverse depression; surface covered with fine irregularly confluent grooved lines, more crowded towards the apex, where their interstices are raised, and form irregular crenulations; on each elytron are six or seven double rows of punctures, visible only here and there, principally on the anterior half of the surface, being entirely obliterated for the remainder of their course; on the outer disc, just before its middle, is a small smooth spot, shining blue-green.

Male.—Posterior thighs strongly incrassate, extending beyond the elytra for nearly half their length, their outer surface very convex, the thickest portion of the thigh being across its middle; lower edge deeply notched at the apex and armed with two stout teeth, the anterior larger and situated immediately in front, the other placed just at the posterior angle of the notch, the inner edge of which is clothed with fulvous hairs; hinder tibiæ curved at the base, thence nearly straight to the apex, the middle portion slightly flexuose; apex strongly mucronate, armed on either side with a stout tooth, the outer one large and slightly curved, the inner one very short; inner edge notched at the base, deeply grooved and sparingly clothed with pale pubescence; basal segment of abdomen flattened, remotely punctured, very sparingly dotted with a few fulvous hairs.

Hab. Borneo; collected by the late Madame Pfeiffer.

I know but a single specimen (in my own collection) of this fine insect; it bears a very much stronger resemblance to S. superba and quadraticollis than to S. Druryi and its congeners, with which insects, however, from the possession of a second tooth at the apex of the lower edge of its hinder femora, it must be placed; but the position of this tooth is very different—instead of being situated in the notch itself, as in the above species, it is placed at its posterior angle.

#### Sagra Javeti, n. sp.

Oblonga, postice attenuata, viridi-cuprea aut rufo-purpurea, sub-nitida, tarsis antennisque nigris, his dimidio corporis paullo longioribus; thorace sub-quadrato, sub-remote fortiter punctato, margine antico modice producto, medio sinuato, angulis anticis sat prominulis; elytris sub fortiter punctato-striatis, infra humeros valde impressis, basi elevatis.

Mas.—Femoribus posticis elytra valde superantibus, supra apicem versus non compressis, intus ad marginem inferiorem prope basin laxe flavo-tomentosis, subtus obsolete denticulatis, apicem versus breviter sed fortiter bidentatis, tibiis ejusdem paris apice uncinatis, extus pone medium spinâ validâ arcuatâ armatis.

Fæm.—Femoribus posticis elytra vix superantibus, subtus tenuiter denticulatis, apicem versus cretâ denticulatâ instructis, tibiis ejusdem paris apice mucronatis.

Var. A. Mas.—Minor, femoribus posticis subtus tridentatis. Long. 7 lin.; var.  $5\frac{1}{2}$ —6 lin.

Oblong; metallic green or cupreous, stained with rufo-aureous; antennæ and tarsi black. Head with the vertex deeply and somewhat closely punctured; antennæ robust, more than half the length of the body, six basal joints shining, the rest semi-opaque. Thorax slightly longer than broad, its anterior margin moderately produced, obsoletely sinuate, anterior angles somewhat strongly

prominent; sides sinuate; above deeply but not coarsely punctured, punctures irregularly crowded, more scattered and distant on the disc; on the centre of the latter is an indistinct longitudinal ridge, and at its extreme base a distinct fovea. Elytra obovate, their base truncate; basilar space considerably clevated, bounded below by a deep transverse depression; shoulders moderately prominent, impressed on their inner margin with a deep oblique fovea; surface distinctly punctate-striate, the puncturing, which is visible to the extreme apex of the elytra, confused and irregular towards the sides; interspaces finely acciulate-reticulate, the reticulations on the outer side of the shoulder vermiculate. Body beneath distinctly punctured.

Male.—Posterior pair of thighs extending considerably beyond the apex of the elytra, elongate-incrassate, their upper edge produced in front into a broad but slightly elevated ridge, which becomes lost on the apical third of the thigh, the latter portion slightly depressed and obliquely rounded, its extreme apex being deeply notched; lower edge compressed into an obsoletely toothed ridge, and armed immediately before the apex with two short stout teeth, the anterior somewhat larger; inner surface longitudinally carinate, its lower half sparingly clothed at the base with a few scattered fulvous hairs; tibiæ of the same pair strongly flexuose, their apex strongly mucronate, outer edge armed with a stout elongate curved spine. Basal segment of abdomen longitudinally excavated, coarsely punctured, and, together with all the other segments, covered with coarse yellow hairs.

Female.—Posterior pair of thighs furnished before their apex beneath with a short denticulate ridge; tibiæ simple.

Var. A. Smaller; thighs of the male tridentate beneath.

Hab. Port Natal.

This species may be separated from its congeners by the different form of the apical third of the upper surface of its hinder femora; the general form of the body is also shorter and stouter than in any of the allied species.

Sagra Stevensi, n. sp.

Elongato-oblonga, obscure metallico-viridis, sub-nitida, thorace tenuissime punctato, transverso (apice modice producto prætermisso), lateribus fere rectis, angulis anticis modice prominulis; elytris basi sat elevato-marginatis, intra humeros valde sulcatis; infra basin vix transversim impressis, tenuiter punctato-striatis, striis per paria sat approximatis, apicem versus deletis, interstitiis tenuissime punctatis, tenuiter reticulato-aciculatis.

Mas. — Femoribus posticis elytra modice superantibus, validis; intus ad basin flavo-tomentosis; supra apicem versus compresso-dilatatis et ibi carinatis, subtus ante apicem dente valido trigono armatis; tibiis ejusdem paris flexuosis, apice mucronatis, extus pone medium dente elongato arcuato instructis; abdominis segmento primo complanato, remote punctato.

Long. 81 lin.

Dull metallic-green, sub-nitidous, obscurely stained with purple : antennæ black, basal joints obscure purple. Head with its vertex finely punctured; antennæ robust, longer than half the body. Thorax slightly broader than long, anterior margin moderately produced, anterior angles sub-prominent, obtuse; upper surface minutely punctured, impressed at the base with a broad shallow fovea; scutellum small, semi-ovate, shining black. Elytra oblongovate, truncate at the base, narrowed towards their apex, convex, their extreme base between the shoulders deeply impressed, the basal margin itself being elevated into a narrow ridge; shoulders slightly prominent, their inner edge bounded by a deep longitudinal fovea; basilar space bounded beneath by an indistinct transverse impression; surface covered with fine punctures, arranged in longitudinal striæ, approximating in pairs and becoming obsolete towards the apex of the elytra; interspaces minutely punctured, very finely reticulate-aciculate. First segment of abdomen distinctly punctured, its centre without the usual covering of hair, but together with all the other segments sparingly fringed near the lower edge with coarse fulvous pubescence; posterior femora extending beyond the elytra for about a fourth their length, strongly incrassate, sub-clavate, outer surface longitudinally convex; their upper edge rounded, its posterior third dilated and compressed into an acute ridge, notched immediately above the extreme apex of the thigh; lower edge armed near its apex with a stout trigonate tooth; inner surface concave, its anterior half covered with a large patch of coarse fulvous hairs; posterior tibiæ arcuate at the base, their middle portion flexuous, the apex subuncinate, the outer edge below the middle armed with a stout spine.—Male.

Hab. White Nile. A single specimen in my own collection.

I have named this beautiful species after my friend S. Stevens, Esq. It is nearly allied to S. Senegalensis, but nearly twice the size, longer and more parallel than that insect, less narrowed behind, rather less convex, its surface sub-opaque; upper edge of the hinder thighs more compressed and dilated at the apex; thorax much broader.

Sagra Jansoni, n. sp.

Elongata, rufo-aurea, viridi-nitens, antennis robustis, dimidio corporis longioribus, purpureis, basi viridibus; thorace sub-remote punctato, latitudine paullo longiori, angulis anticis sub-prominulis, obtusis; elytris intra humeros oblique sulcatis, infra basin leviter transversim-impressis, punctato-striatis, interspatiis tenuiter reticulato-vermiculatis; femoribus intermediis subtus in dentem compressum productis.

Long. mas. 6—7 lin.; fem.  $5\frac{1}{3}$  lin.

Mas.—Femoribus posticis elytra modice superantibus, elongatoobovatis, intus ad basin flavo-tomentosis, subtus ante apicem bidentatis; tibiis ejusdem paris apice mucronatis, ante apicem extus spinâ validâ intus dente brevi armatis, abdominis segmento primo longitudinaliter excavato, crebre punctato, flavotomentoso.

Fæm.—Femoribus posticis elytra vix superantibus, ante apicem cretà denticulatà instructis.

Var. A.—Metallico-viridis, subtus purpureo-micans; antennis purpureis.

Elongate, shining rufo-aureous, with metallic-green markings and reflexions beneath; antennæ purple, their basal half metallicgreen. Head deeply punctured; antennæ robust, slightly incrassate towards their apex, two-thirds the length of the body in the male, somewhat shorter in the female, six basal joints metallicgreen, the remainder deep purple. Thorax slightly longer than broad, anterior margin moderately produced, anterior angles moderately prominent; sides slightly concave; above deeply but not very closely punctured, middle transversely depressed in front of the basal margin. Scutellum metallic-green, its surface smooth, Elytra oblong - elongate, their apex sub-acutely impunctate. rounded, above convex, base obliquely impressed within the shoulders, the latter slightly prominent, basilar space bounded below by a shallow but distinct transverse depression; finely but distinctly punctate striate, the puncturing being visible over the whole surface of the elytra, interspaces finely vermiculate-reticulate. Body beneath more stained with metallic-green, sub-remotely punctured; four anterior thighs moderately incrassate, the intermediate pair produced beneath into a flattened tooth; tibiæ strongly curved.

Male.—Intermediate thighs produced beneath into a flattened acute tooth; hinder thighs extending beyond the elytra for a fourth their length; elongate-obovate, incrassate, their lower edge notched at the apex and armed with two short stout teeth, of

which the anterior one is rather larger; on the inner surface, at the base, is a large patch of coarse yellow pubescence; tibiæ of the same pair mucronate at the apex, and armed just before the latter, externally with a stout spine, internally with a very short obtuse tooth; basal segment of abdomen longitudinally excavated, coarsely punctured and covered with coarse yellow pubescence.

Female.—Intermediate femora produced beneath into a flattened sub-acute tooth; hinder thighs scarcely extending beyond the elytra, furnished near their apex beneath with a short denticulate ridge.

Var. A.—Bright metallic-green, body beneath and legs with purple reflexions.

Madras, collected by Mrs. Hamilton.

I have named this beautiful species after my friend E. Janson, Esq., the able co-secretary of our Society; it ought to stand close to S. Petelii, but is easily separated from that insect by its elongate form and by the toothed intermediate thighs.

## Sagra carbunculus, Hope.

"Cyanea, elytris igneo auroque micantibus, pedibus posticis incrassatis, tibiis incurvatis."

Long. 41 lin.

"Caput, antennæ, thorax, corpus infra pedesque cyanei. Thorax fere quadratus, antice ante oculos contractus, punctulatus. Elytra carbunculosa, igneo auroque micantia, creberrime punctulata. Pedes femoribus 4 anticis parum incrassatis, tibiis subincurvis; posticis valde incrassatis, subunidentatis, tibiis arcuatis, tarsis flavo-spongiosis.

" Ex. India orientali, Sylhet."

Hope, Trans. Lin. Soc. xix. p. 112, pl. 10, fig. 9; Annals and Mag. of Nat. Hist. ix. p. 248.

Mas.—Femoribus posticis valde incrassatis, elytra sat superantibus, intus prope marginem inferiorem flavo-tomentosis; subtus ante apicem laminâ tridentatâ, dente intermedio valido, postice denticulato, instructis; tibiis ejusdem paris basi arcuatis, deiude subrectis, apice mucronatis, extus ante apicem late emarginatis, intus obsoletius dentatis, abdominis segmento primo complanato, leviter excavato, parce punctato, vage flavo-tomentoso.

Var. A.—Duplo minor, femoribus posticis elytra modice superantibus, glabris, subtus ante apicem cristâ tridentatâ instructis, tibiis ejusdem paris simplicibus.

Long. 6 lin.; var.  $4\frac{3}{4}$  lin.

Male.—Posterior pair of thighs considerably longer than the elytra, strongly incrassate, their inner surface furnished near its lower border with a narrow stripe of fulvous pubescence; lower edge denticulate, produced near the apex into a flattened tridentate plate, the middle tooth of which is elongate, slightly curved and denticulate on its posterior margin; upper surface indistinctly carinate; tibiæ of the same pair arcuate at their base, thence nearly straight to their apex, the latter mucronate; inner surface on its outer edge, immediately before the apex, deeply emarginate, the inner edge obsoletely tuberculate; basal segment of abdomen flattened, indistinctly excavated, remotely punctured, sparingly clothed with short fulvous hairs.

Var. A. Nearly one-half smaller, hinder thighs extending for a short distance beyond the apex of the elytra, glabrous within, their lower edge denticulate and produced just before the apex into a short tridentate ridge, the two outer teeth of which are small and indistinct; posterior tibiæ arcuate, simple, their apex mucronate.

This insect varies in the degree of punctation and also in the coloration of the elytra; the interspaces are minutely punctured and sub-granulose, and covered with distinct irregular sinuosities, which become more crowded near the apex of the elytra, their interstices on that portion being irregularly wrinkled; in the var. A. the elytra are smoother, and the colour of the elytra for the most part is rufo-aureous, with a violet tint, narrowly edged with bright metallic blue; in my specimen of var. A. the elytra are bright igneous, bordered with metallic blue.

Hab. Northern India, Sylhet.

This beautiful little species, unknown to Lacordaire, is now not uncommon in our collections; a single specimen of var. A. is in my own cabinet.

## Sagra lucida, n. sp.

Oblongo-elongata, læte purpurea, nitida; antennis robustis, corporis dimidio vix longioribus; thorace latitudine paullo longiori, sub-cylindrico, margine antico modice producto, angulis anticis vix prominulis; elytris oblongis, intra humeros modice impressis, basi paullo elevatis, infra basin leviter transversim depressis; tenuiter punctato-striatis, striis sub lente ægre distinguentibus.

Fæm.—Femoribus posticis elytra non superantibus, subtus ante apicem cristâ brevi denticulatâ instructis; tibiis ejusdem paris simplicibus.

Long. 6 lin.

Oblong-elongate, deep shining metallic-purple. Head impressed

on the forehead with a deep round fovea; antennæ robust, thickened towards their apex, scarcely longer than half the body, last four joints black, opaque. Thorax rather longer than broad, sub-cylindrical, anterior margin moderately produced, anterior angles scarcely prominent; above shining, impunctate. Scutellum transverse-quadrate, its apex obtuse. Elytra oblong, moderately impressed within the shoulders, the latter sub-prominent; basilar space indistinctly elevated, bounded beneath by a shallow transverse depression; smooth and shining, very finely punctate-striate, the striæ, which are visible only under a lens, placed at regular intervals on the surface.

Female.—Posterior pair of thighs not extending beyond the elytra, their lower edge furnished just before the apex with a short denticulate ridge; posterior tibiæ simple.

Hab. Cape Coast.

Collection of Major Parry; also in my own cabinet.

This beautiful insect belongs, through the elevated basilar space of its elytra, to the first division of the genus; its male probably resembles that of S. Senegalensis.

## Sagra emarginata, n. sp.

Elongata, cuprea, læte rufo-cuprea, purpureo-micans; antennis extrorsum purpureis, subtus nitida, supra sub-opaca; thorace sub-cylindrico, latitudine paullo longiori, angulis anticis vix prominulis; elytris sub-parallelis, apicem versus attenuatis, singulatim apice leviter emarginatis, supra intra humeros impressis, tenuiter punctato-striatis, striis per paria vix approximatis.

Mas.—Femoribus posticis elytra parum superantibus, subtus ante apicem cretà brevi basi dente parvo munità instructis, tibiis ejusdem paris curvatis, apice vix mucronatis; abdominis segmento primo longitudinaliter excavato, sub-crebre punctato, laxe flavo-tomentoso.

Fæm.—Femoribus posticis elytris non superantibus, glabris, subtus ante apicem cretâ brevi basi dente parvo munitâ instructis, tibiis posticis curvatis.

Long. mas 5-6 lin.; fæm. 8 lin.

Elongate, cupreous or rufo-cupreous, with purple reflexions; body beneath shining, above sub-opaque, six terminal joints of antennæ dark purple. Head sub-remotely punctured, front impressed with a longitudinal fovea; antennæ robust, more than half the length of the body. Thorax sub-cylindrical, rather longer

than broad; anterior margin moderately produced, anterior angles scarcely prominent; surface impunctate, impressed at the base with an indistinct fovea. Scutellum longitudinally grooved. Elytra narrowly oblong, sub-parallel, narrowed near the apex, the latter in each elytron slightly but distinctly sinuate; upper surface deeply impressed at the base within the shoulders, finely and regularly punctate-striate, the striæ distinct for their whole length, and (excepting at the extreme base, where they slightly approximate in pairs) equidistant.

Male.—Posterior femora slightly produced beyond the apex of the elytra, glabrous at the base, incrassate, somewhat flask-shaped, their lower edge obsoletely denticulate, furnished before the apex with a short denticulate ridge; tibiæ of the same pair arcuate, simple, their apex obtusely mucronate; basal segment of abdomen with a longitudinal shallow depression, the surface of which is deeply but not very closely punctured, and sparingly covered with very fine fulvous hairs.

Female.—Posterior pair of thighs not extending beyond the elytra, their lower edge similar to that of the male.

Hab. west coast of Africa.

Both sexes in the collection of Major Parry; the male in my own cabinet.

## Sagra Parryi, n. sp.

Elongata, rufo-purpurea, sub-nitida, subtus nitida; antennis extrorsum cæruleis, tarsis obscure purpureis; thorace latitudine sat longiori, sub-cylindrico, angulis anticis vix prominulis; elytris tenuiter punctato-striatis, striis fere æquidistantibus.

Mas.—Femoribus posticis elytra paullo superantibus, intus ad basin flavo-tomentosis, subtus pone medium cristà brevi postice valide unidentatà et ante apicem dente brevi obtuso, instructis; tibiis ejusdem paris apicem versus incrassatis, apice obtuse mucronato, margine antico extus cristà, a vix ante medium ad paullum ante apicem prolongatà, et apice in dentem compressum productà, intus ante apicem cristà brevi emarginatà instructo; abdominis segmento primo leviter excavato, sub-crebre punctato, vix flavo-tomentoso.

Fæm.—Femoribus posticis elytris non longioribus, subtus ante apicem cristâ brevi denticulatâ instructis, tibiis ejusdem paris curvatis; thorace minus elongato.

Long. 7-8 lin.

Elongate, reddish purple or purple, sub-nitidous above, shining beneath. Head deeply punctured; antennæ robust, longer than

half the body, five terminal joints deep metallic-blue. Thorax considerably longer than broad, nearly resembling, in that respect, S. longicollis, Lac., sub-cylindrical, apical margin very slightly produced, anterior angles obsoletely prominent; upper surface impunctate, impressed at the base with a shallow but distinct longitudinal fovea. Scutellum impressed with a broad longitudinal fovea. Elytra oblong-elongate, sides sub-parallel, narrowed towards the apex; above sub-nitidous, moderately impressed within the shoulders, the latter slightly prominent; surface finely punctate-striate, the striæ æquidistant, slightly approximating in pairs at the base, interspaces finely vermiculate; in the female the surface of the outer disc is very feebly concave below the shoulders. Body beneath shining, tarsi obscure purple, with occasionally a rufous reflexion.

Male.—Posterior thighs slightly exceeding the elytra in length, strongly incrassate; lower edge armed before the apex with a very short obtuse tooth, and immediately behind the middle with a short ridge, the posterior extremity of which is produced into a long stout tooth, inner surface furnished near the base with a small patch of fulvous hairs; tibiæ of the same pair compressed, strongly curved at the base, gradually thickened from immediately before the middle nearly to the apex, the latter mucronate; anterior surface deeply channelled, its outer edge furnished with a broad ridge, which, commencing just before the middle, gradually increases in width until just before reaching the apex of the tibia, terminating in a broad flattened tooth; the inner edge is furnished immediately before its apex with a short emarginate ridge; basal segment of abdomen longitudinally excavated, irregularly but somewhat closely punctured, its surface very sparingly covered with short fulvous hairs, which are only visible when viewed obliquely.

Female.—Posterior pair of thighs not extending beyond the apex of the elytra, the lower edge denticulate, and produced near its apex into a short denticulate ridge.

Hab. west coast of Africa.

Collections of the British Museum, Major Parry, and my own. This beautiful species is remarkable for the peculiar form of the hinder tibiæ; it is closely allied to S. amethystina, Lac., but differs in having a tomentose patch at the inner base of the posterior femora; S. Lacordairei, Thoms, appears to come very near to the present insect, but according to the short description of the author, the dentation of the thighs, and also the form of the tibiæ, differ from the present insect.

#### Sagra bicolor, Lacordaire.

"Elongata, nigro-cyanea (vel nigra), opaca; elytris purpureis opacis, subtilissime punctato-striatis, striis per paria aliquantum approximatis." Lacord. Monog. des Phyt. tom. i. p. 55.

Mas.—Femoribus posticis elytra valde superantibus, intus ad basin flavo-tomentosis, subtus ante apicem bidentatis, dente exteriori valido; supra a medio ad apicem late canaliculatis; tibiis ejusdem paris basi arcuatis, deinde sub-rectis, apice leviter mucronatis, basi tuberculo, ante apicem dentibus duobus parvis instructis; abdominis segmento primo longitudinaliter vix excavato, crebre punctato, vix tomentoso.

Sagra Natalensis, Thoms. Archiv. tom. i. p. 396.

Long. 7½-9 lin.; var. 6 lin.

Var. A.—Minor, femoribus posticis elytra paullo superantibus, subtus ante apicem cristâ brevi bidentatâ, dente postico valido, munitis; tibiis ejusdem paris arcuatis, apice sub-mucronatis, basi tuberculo, ante apicem dente sub-obsoleto instructis; abdominis segmento primo longitudinaliter vix excavato, tenuiter punctato, vage flavo-tomentoso.

Var. B.—Corpus olivaceum, elytris cupreis, cæteris ut in Var. A.

Male.—Hinder pair of thighs elongate incrassate, extending beyond the elytra for about a third of their length, their upper edge deeply channelled along the posterior half; underside armed just before the apex with two teeth, the outer one stout, the inner minute; inner surface hollowed out from the base nearly to the middle, the excavated portion covered with an obovate patch of coarse yellow pubescence; posterior tibiæ curved at the base, their inner edge furnished with a short tubercle, the remainder of their course nearly straight; apex sub-mucronate, and armed just before the extremity with two short ill-defined lateral teeth; longitudinal space on the basal segment of abdomen feebly excavated, somewhat closely punctured, vaguely tomentose.

Var. A.—One-half smaller; thorax rather narrower, posterior thighs slightly longer than the elytra, the outer tooth on the lower edge replaced by a short bidentate ridge, the posterior tooth of which is longer and stouter than the others; inner tooth nearly obsolete; hinder tibiæ regularly curved, their inner surface tuberculate at the base, and furnished near the apex with an indistinct tooth, apex itself feebly mucronate.

Var. B. Male.—Olivaceous, the elytra cupreous, more or less stained with metallic-green; all the other characters as in var. A.

Hab. Port Natal.

In most collections; var. A. in the British Museum; var. B. in my own cabinet.

This insect has latterly arrived in some abundance from the above locality; the male may be known from all its allies by the broad groove on the posterior half of the upper edge of the hinder thighs; its coloration is also entirely different from any known species. I look upon var. A. and B. as bearing the same relation to the normal state of the species that S. perlucida and ignita do to their respective types. The tomentose space on the hinder thigh in the male will cause the removal of the species from the sub-section in which Lacordaire, from being unacquainted with this sex, has provisionally placed it, to the succeeding one. Mr. Thomson has described the male of this species under the name of Sagra Natalensis.

#### Sagra Kirbyi, n. sp.

Elongata, obscure olivacea, sub-opaca; thorace subc-ylindrico, margine antico sat producto, angulis anticis vix prominulis; elytris regulariter punctato-striatis, striis per paria sat approximatis, interspatiis punctatis, processu prosternali obsoleto.

Mas.—Femoribus intermediis subtus acute unidentatis, posticis elytra valde superantibus, supra anguste canaliculatis, intus ad basin flavo-tomentosis, subtus ante apicem cristà denticulatà, antice dente valido munità, instructis; tibiis ejusdem paris basi arcuatis, deinde sub-rectis, apice mucronatis, basi tuberculo, ante apicem dentibus duobus indistinctis, munitis; abdominis segmento primo medio longitudinaliter complanato, sub-remote punctato, vage flavo-tomentoso.

Fam.—Femoribus intermediis subtus obtuse unidentatis, posticis elytris non superantibus, subtus cristâ denticulatâ paullo ante apicem dente brevi munitâ, instructis; tibiis ejusdem paris arcuatis, basi tuberculatis, apice sub-mucronatis.

Long. mas  $8\frac{1}{2}$ ,  $f \propto m$ . 7 lin.

Elongate, obscure olivaceous, sub-opaque. Head minutely punctured; the antennæ unfortunately wanting in the only male specimen that I possess; in the female they are robust and more than half the length of the body. Thorax sub-cylindrical, rather longer than broad, anterior edge moderately produced, anterior angles indistinctly prominent, surface sub-remotely impressed with

very minute punctures, which are only visible under a lens. Scutellum dark shining metallic-green, longitudinally grooved. Elytra sub-clongate, narrowed behind, their surface impressed within the shoulders, distinctly punctate-striate, the striæ closely approximating in pairs, intervals between the double rows remotely impressed with rather less distinct punctures than those on the striæ themselves; these punctures are wanting in the single female before me. Prosternal process obsolete.

Male. — Intermediate thighs produced beneath into a compressed acute tooth, posterior pair extending for a third of their length beyond the apex of the elytra, incrassate and resembling an elongate club, the upper edge narrowly but distinctly grooved along the posterior two-thirds of its length; outer edge of the groove elevated, and forming (when viewed from within) a distinct ridge, inner surface excavated at the base, and clothed with coarse fulvous pubescence: lower edge indistinctly denticulate, furnished before the apex with a short ridge, the apex of which is produced into a stout conical tooth, in front of which is a deep notch; tibiæ of the same pair curved at the base, nearly straight towards the mucronate apex, furnished on either side just before the latter with a nearly obsolete obtuse tooth; inner surface tuberculate at the base; basal segment of abdomen longitudinally depressed, deeply but sub-remotely punctured, clothed with a few coarse fulyous hairs.

Female.—Intermediate thighs armed beneath with an obtuse tooth, posterior pair scarcely extending beyond the apex of the elytra, their lower edge obsoletely denticulate, furnished before the apex with a short denticulate ridge, the anterior extremity of which is produced into a short tooth.

Hab. Congo.

The male in my own collection, without precise locality, formerly belonged to the Rev. W. Kirby, and was sent to him by M. Du Freme. The female, from Congo, is in the British Museum. It ought to stand near S. bicolor, and it forms a link between the section in which I have placed it and the succeeding one; in the absence of a prosternal process and in the punctation of the elytra it agrees with the former, whilst on the other hand the toothed intermediate thighs ally it to the latter group.

## Sagra Murrayi, n. sp.

Late elongata, postice attenuata, cæruleo-viridis, sub-nitida; antennis corporis dimidio longioribus, thorace sub-quadrato,

angulis anticis prominulis; elytris fortiter flexuoso-impressis, interspatiis (præsertim ad basin) elevato-plicatis; processu prosternali compresso, retrorsum producto, femoribus intermediis subtus unidentatis.

Mas.—Femoribus intermediis subtus valide unidentatis, posticis elongatis rectis, supra sub-sinuatis, intus ad basin flavo-to-mentosis, subtus ante apicem bidentatis, dente externo valido interno minuto; tibiis ejusdem paris sub-rectis basi tuberculatis, ante apicem sub-flexuosis, apice mucronatis; abdominis segmento primo longitudinaliter excavato, fortiter punctato, flavo-tomentoso.

Fæm.—Femoribus intermediis obtuse dentatis, posticis elytra non superantibus, subtus cristâ denticulatâ antice unidentatâ instructis; tibiis ejusdem paris arcuatis, basi tuberculatis.

Long. mas  $9\frac{1}{2}$ , fæm.  $8\frac{2}{3}$  lin.

Broadly elongate, narrowed posteriorly, dark metallic bluegreen, sub-nitidous. Head impressed on the neck with an oblong fovea; antennæ robust, longer than half the body. Thorax sub-quadrate, broader than in S. tristis, anterior margin moderately produced, feebly sinuate in the middle, anterior angles moderately prominent, above sub-opaque, impunctate, impressed at the base with a distinct sub-cruciform fovea. Scutellum ovate, longitudinally bifoveolate. Elytra elongate-ovate, truncate at their base, narrowed behind their middle; sub-nitidous, slightly impressed within the shoulders; surface closely covered with irregular grooved lines, their interspaces strongly elevated, rugoso-plicate; these rugosities are less distinctly raised below the middle of the elytra, and become nearly obsolete towards the apex, although even there much more visible than in S. tristis; prosternal process flattened, produced posteriorly to the mesosternum.

Male.—Intermediate pair of thighs incrassate, their lower surface produced into a stout acute tooth; hinder thighs extending beyond the elytra for nearly a third of their length, elongate, incrassate, not increasing in width below the middle, lower edge furnished with a narrow denticulate ridge; apex notched and bidentate, the outer tooth large and stout, the inner one minute, inner surface furnished at the base with a yellow tomentose patch; hinder tibiæ nearly straight, slightly flexuous before the apex, the latter obtusely mucronate, their inner surface tuberculate at the base; basal segment of abdomen longitudinally excavated, closely punctured, flavo-tomentose.

Female.—Intermediate thighs produced beneath into an obtuse tooth; hinder pair armed on the lower edge with a stout acute sub-apical tooth, hinder tibiæ arcuate, their inner surface tuberculate at the base, the apex simple. In this sex there are indications of some deeply punctured striæ on the elytra; they are, however, much interrupted by the rugosities of the surface, and are with difficulty to be made out.

Hab. White Nile. Both sexes in my own cabinet.

Very close to S. tristis, immediately after which insect it must be placed; it differs in the broader thorax, the much more strongly marked rugosities on the surface of the elytra, and in the different shape of the posterior femora; these latter are much longer, scarcely increasing in thickness from below their base nearly to the apex, their upper edge being much straighter and obsoletely sinuate in the middle.

# Sagra Döhrnii, n. sp.

Elongato-oblonga, læte purpurea, nitida; antennis corporis dimidio paullo longioribus; thorace sub-quadrato, margine antico modice producto, angulis anticis sat productis, retrorsum fere curvatis, margine antico arcuatis, elytris fortiter vermiculatis, interspatiis (præsertim ante medium) valde elevatis, plicato-rugosis.

Fæm.—Femoribus intermediis subtus acute unidentatis, posticis subtus denticulatis, ante apicem cristâ brevi antice unidentatâ instructis; tibiis ejusdem paris arcuatis, apice vix mucronatis, processu prosternali compresso, retrorsum producto.

Long. 8 lin.

Narrowly oblong, bright purple, nitidous. Head finely punctured, front impressed with a quadrilobate fovea; antennæ robust, rather longer than half the body. Thorax sub-quadrate, apical margin moderately produced, anterior angles very prominent, their front edge convex, the hinder one concave, causing the angles themselves to appear almost recurved; upper surface shining, impunctate, impressed near the base with a shallow fovea. Elytra rather more parallel and less narrowed behind than in Sagra Murrayi, otherwise agreeing in form and sculpture with that species, their surface still more irregular, the punctate striæ more deeply impressed, coarse, and rather more visible to the eye.

Female.—Intermediate thighs armed beneath with an acute tooth; posterior pair not exceeding the elytra in length, their lower edge denticulate, produced before the apex into a short

indistinct ridge, the anterior edge of which is unidentate; posterior tibiæ arcuate, the apex obsoletely mucronate.

Hab. West Coast of Africa. In Major Parry's and my own collections.

At once separated from S. Murrayi, next to which species it ought to stand, by the peculiar form of the anterior angles of the thorax, and the acutely dentate mesofemora.

#### Genus Cheiloxena. (Details, Pl. XIV.)

Antennæ paullum intra marginem interiorem oculorum insertæ, filiformes, robustæ, articulo primo brevi, incrassato, secundo brevissimo, tertio elongato, cæteris fere æqualibns.

Mandibulæ (fig. b) prominentes, robustæ, apice bidentatæ, dextrâ intus dentatâ.

Labrum (fig. e) transversum, antice sub-sinuatum.

Epistoma (fig. c) facie separata, hujus margine inferiori (fig. d) fere occultato, apice membranacea.

Palpi (figs. f, g) articulo ultimo obovato, apice truncato.

Mentum (fig. g) transversum, concavum.

Labium (fig. g) corneum, obtusum.

Prosternum distinctum, postice ampliatum.

Caput (fig. a) perpendiculare, faciei margine inferiori valde emarginata, oculis rotundato-ovatis, intus vix sinuatis.

Thorax (fig. e) sub-cylindricus, basi et apice paullo angustatus, lateribus dentatis.

Scutellum sub-trigonatum, apice obtusum.

Elytra thorace multo latiora, oblonga, parallela, apice rotundata, convexa, humeris lateralibus prominulis.

Pedes modice robusti, mediocres; coxis quatuor anticis subconicis, femoribus vix incrassatis, inermibus, posticis (fig. j)
cæteris non crassioribus; tarsis (fig. h) articulis sub-trigonatis,
inter se latitudine æqualibus, tertio apice leviter emarginato,
ungue hoc duplo longiori, unguiculis dente brevi armatis.

Abdomen (fig. k) segmentis intermediis angustatis.

Corpus elongato-oblongum, convexum.

Type Cheiloxena Westwoodii, Baly.

This singular genus is remarkable for the possession of a free epistoma, being separated by this peculiarity from the other known phytophagous genera, in all of which the same part is closely united in a single piece with the face. In Cheiloxena the epistoma is attached by its base to the inner surface of the head, being more or less concealed (when viewed from above) by the

deeply emarginate lower edge of the face; the extent of surface visible varies greatly in different individuals, rendering it more than probable that the insect in life has the power of retracting to a certain degree the part within the head. The anterior edge is bordered by a broad membranous margin. Cheiloxena has very strong affinities with the Longicornia; in fact, in many genera amongst the Lamicidæ (the family to which it is most nearly related) a similar structure of the epistoma exists. It is, however, at once separated from that group, as well as from the majority of the tribe, by its simple eyes; whilst the perpendicular head and the absence of a neck forbid its being placed with the Lepturida, the only longicorn family possessing a similar form of eye. I have not therefore hesitated in uniting it with the Phytophaga, of which great tribe it will probably ultimately form a distinct family; for the present I have placed the genus with the Sagrida, with which family it appears to have most characters in common. It agrees with it in having a narrow thorax and a distinct prosternum, differing in the free epistoma, non-incrassate and unarmed hinder thighs, and (Amatella excepted) in the toothed claws. From the Donacidæ and Crioceridæ it is separated by the distinct prosternum; from the Chrysomelidæ by the narrow thorax and smaller third joint of the tarsi; and from the Eumolpidæ by this latter character and the different form of the antero-lateral plate of the antipectus; it also differs from all the previously mentioned groups, approaching the Clythridæ and allied families, in the contraction of the intermediate abdominal segments.

# Cheiloxena Westwoodii, n. sp. (Pl. XIV. figs. 1, 2.)

Sub-elongata, convexa, opaca, fusca, pilis squamæformibus adpressis obscure flavis (his hic illic in elytris in maculas parvas condensatis), induta, capite thoraceque fortiter et crebre punctatis, hoc sub-cylindrico, lateribus ante medium dentato; elytris fortiter sub-crebre striato-punctatis, utrisque sereibus quatuor tuberculorum elevatorum instructis.

Long.  $4-5\frac{1}{3}$  lin.

Sub-elongate, convex, opaque, obscure fuscous, whole body covered with short adpressed scale-like hairs, which are congregated here and on the surface of the elytra into small obscure fulvous patches. Head coarsely and closely punctured; face vertical, somewhat wedge-shaped, its inferior margin deeply notched; eyes prominent, rotundate-ovate, their inner edge feebly sinuate; antennæ robust, nearly three-fourths the length

of the body, their surface covered with long adpressed pubescence, finer than that on the body. Thorax rather longer than broad, sub-cylindrical, sides rounded, obliquely narrowed from the middle to the base, narrowed in front, armed before the middle with three or four stout obtuse teeth, placed in an oblique row; anterior margin slightly produced, convex; surface closely and coarsely punctured, almost entirely covered with four or five large shallow excavations. Scutellum sub-trigonate, sinuate on the sides, the apex rounded, surface closely covered with adpressed hairs. Elytra considerably broader than the thorax; sides parallel, apex regularly rounded; above convex, transversely depressed below the basilar space, shoulders laterally prominent, their apex rounded and compressed, its edge indistinctly sinuate; surface somewhat closely covered with large round deeply impressed punctures, longitudinally arranged in striæ; on each elytra are four rows of elevated oblong tubercles, the inner one most distinct, the others only visible on the hinder half of the surface. Under part of body sub-opaque, abdomen less closely punctured; hinder pair of thighs not extending to the apex of the elytra, and not thicker than the rest.

Hab. Sydney. Collected by Mr. Hunter.

#### TABULAR LIST OF THE SPECIES OF SAGRA.

Divisio I. Elytra basi elevata, infra basin transversim depressa.

I. Femoribus posticis; maris intus ad basin glabris; subtus apice emarginatis, tibiis posticis apice tridentatis.

\* Femoribus posticis subtus tridentatis.

## Sp. 1. Buquetii, Lesson.

Var. A (mas). Minor; tibiis posticis simplicibus, apice breviter mucronatis.

Sagra perlucida, Lacord.

\*\* Femoribus posticis subtus bidentatis, dente postico in medio emarginationis posito.

# Sp. 2. nigrita, Oliv.

Var. A (mas). Femoribus posticis subtus tridentatis; tibiis ejusdem paris simplicibus, apice leviter mucronatis, intus ante apicem interdum obsolete unidentatis.

† In the following Table the characters are drawn, unless otherwise stated, from the normal forms of the fully developed males of the various species.

Var. B. Corpus obscure æneum, cæteris ut in typo. Sagra dentipes, Fab.?

Sp. 3. † dentipes, Fab.

Sp. 4. † empyrca, Lacord.

Sp. 5. Druryi, Lacord.

Var. A (mas). Minor; femoribus posticis elytra vix superantibus, subtus tridentatis, tibiis ejusdem paris simplicibus, apice leviter mucronatis, intus ante apicem interdum obsolete unidentatis.

Sagra tridentata, Weber.

Var. B (mas). Femoribus posticis subtus bidentatis, cæteris ut in var. A.

Sagra Weberi, Lacord.

Sp. 6. + chrysochlora, Lacord.

Sp. 7. longicollis, Lacord.

Sp. 8. splendida, Weber.

Var. A (mas). Femoribus posticis elytris vix longioribus.

Var. B (mas). Minor; femoribus posticis elytris vix longioribus, subtus tridentatis; tibiis ejusdem paris simplicibus, apice leviter mucronatis, intus ante apicem rarius obsolete unidentatis.

> Sagra ignita, Lacord. Sagra formosa, Lacord.

> > Sp. 9. speciosa, Lacord.

Var. A (mas.). Minor; pedibus posticis ut in S. splendida, var. B.

\*\*\* Femoribus posticis subtus bidentatis, dente postico ad angulum posticum emarginationis posito.

Sp. 10. Pfeifferi, Baly.

\*\*\*\* Femoribus posticis subtus unidentatis, dente ante angulum anticum emarginationis posito.

Sp. 11. superba, Lacord.

Var. A (mas). Minor; femoribus posticis elytra modice superantibus, subtus unidentatis; tibiis posticis simplicibus, apice breviter mucronatis.

+ Sagra Fabricii, Lacord.

Sp. 12. quadraticollis, Lacord.

II. Femoribus posticis intus flavo-tomentosis.

\* Tibiis posticis (maris) tridentatis, dente exteriori valido plerumque in spinam curvatam producto, dente interiori minuto, sæpe obsoleto.

a Mesosterno apice obtuso.

Sp. 13. Javeti, Baly.

Sp. 14. Senegalensis (Dej.), Klug.

Sp. 15. Stevensi, Baly.

Sp. 16. Jansoni, Baly.

b Mesosterno apice truncato.

Sp. 17. Petelii, Buq.

Var. A (mas). Minor; femoribus posticis intus glabris, tibiis ejusdem paris simplicibus.

Sagra pygmæa, Lacord.

\*\* Tibiis posticis apice mucronatis, extus ante apicem late emarginatis, intus obsolete tuberculatis.

Sp. 18. carbunculus, Hope.

Var. A (mas). Minor; tibiis posticis apice breviter mucronatis, simplicibus.

Species ad hoc divisionem pertinentes, sed incertæ sedis.

Sp. 19. heterodera, Lacord.

Sp. 20. lucida, Baly.

Divisio II. Elytra basi non elevata, infra basin non aut vix transversim depressa; corpus oblongo-elongatum aut elongatum.

I. Processu prosternali nullo.

\* Femoribus intermediis inermibus. a Femoribus posticis intus glabris.

Sp. 21. + amethystina (Dej.), Guér.

Sp. 22. emarginata, Baly.

aa Femoribus posticis intus flavo-tomentosis.

Sp. 23. Parryi, Baly.

Sp. 24. bicolor, Lacord.

Var. A. (mas). Minor; femoribus posticis subtus ante apicem cristà basi bidentatà instructis.

Sp. 25. † cæruleata, Lacord.

Sp. 26. † Urania, Lacord.

Sp. 27. seraphica, Lacord.

Sp. 28. + Adonis, Lacord.

\*\* Femoribus intermediis subtus unidentatis.

Sp. 29. Kirbyi, Baly.

II. Processu prosternali postice producto.

\* Thoracis angulis anticis paullo prominulis, femoribus intermediis fœminæ obtuse unidentatis.

Sp. 30. tristis, Fabr.

Sp. 31. Murrayi, Baly.

\*\* Thoracis angulis auticis sat prominulis; femoribus intermediis foeminæ subtus acute unidentatis.

Sp. 32. Dohrnii, Baly.

Sp. 33. † Galinieri, Reiche.

Species mihi ignotæ.

Sp. 34. † Deyrollii, Thoms.

Sp. 35. + Signoreti, Thoms.

Sp. 36. + Lacordairei, Thoms. ‡

Sp. 37. † ænea, Oliv.

Sp. 38. † cyanea, Dalm.

<sup>‡</sup> This insect is probably my S. Parryi, but Mr. Thomson's description of the hinder thigh is too brief and superficial to enable me to decide with any approach to certainty.

#### EXPLANATION OF PLATE XIV.

Fig. 1. Cheiloxena Westwoodii.

- 2. Cheiloxena Westwoodii, lateral view.
  - a, head of ditto.
  - b, mandibles of ditto.
  - c, epistoma of ditto, detached from the head.
  - d, lower portion of face of ditto, showing the concave notch below which the epistoma is seen.
  - e, labrum and epistoma as seen in sitú when viewed from above; upper portion corneous epistoma, intermediate ditto the broad membranaceous border, lower ditto the labrum.

f, maxilla of ditto, with maxillary palpus.

- g, labium of ditto and labial palpi.
- h, tarsus of ditto.
- i, hinder leg of ditto.
- k, abdomen of ditto.
- 3. Hinder thigh of Sagra Javeti, &, upper surface.
- 4. Hinder thigh of Sagra Pfeifferi, 3.
- 5. Hinder thigh and tibia of Sagra Parryi, 3.
- 6. Hinder thigh and tibia of Sagra carbunculus, 3.
- 7. Hinder thigh of Sagra bicolor, 3.
- 8.\* Intermediate thigh of Sagra Jansoni, &.
- 8. Thorax of Sagra Dohrnii.
- 9. Hinder thigh of Sagra Dohrnii, Q.
- 9.\*Intermediate thigh of Sagra Dohrnii, Q.
- 10. Hinder thigh of Sugra Stevensi, &.
- 11. Hinder thigh of Sagra splendida, var. B. &.
- 12. Hinder thigh of Sagra tristis, &.
- 13. Hinder thigh of Sagra Murrayi, 3.